



CITY OF HOUSTON

INVITATION TO BID

Issued: July 15, 2016

Bid Opening:

Sealed bids, in duplicate, will be received by the City Secretary of the City of Houston, in the City Hall Annex, Public Level, 900 Bagby, Houston, Texas 77002 until **10:30 A.M. Thursday, August 11, 2016** and all bids will be opened and publicly read in the City Council Chamber, City Hall Annex, Public Level, 900 Bagby at 11:00 A.M. on that date for the purchase of:

**CONCRETE MASONRY UNIT (CMU) WALL STABILIZATION REPAIRS
FOR THE GENERAL SERVICES DEPARTMENT
Bid No. S63-C25754
NIGP Codes: 910-51, 906-38**

Buyer:

Questions regarding this solicitation should be addressed to **Yesenia Chuca, Senior Procurement Specialist, at 832-393-8727 or e-mail to yesenia.chuca@houstontx.gov.**

Electronic Bidding:

In order to submit a bid for the items associated with this procurement, you must fill in the pricing information on the "PLACE BID" page.

Pre-bid Conference:

A Pre-Bid Conference will be held for all Prospective Bidders in the Strategic Procurement Division, Concourse Level (Basement), Conference Room #2, City Hall, 901 Bagby, at **2:00 p.m. on Wednesday, July 27, 2016. The site visits will be scheduled at the pre-bid conference.**

All Prospective Bidders are urged to be present. It is the bidder's responsibility to ensure that they have secured and thoroughly reviewed all aspects of the solicitation documents prior to the Pre-Bid Conference. Any revisions to be incorporated into this solicitation document arising from discussions before, during and subsequent to the Pre-Bid Conference will be confirmed in writing by Letter(s) of Clarification prior to the bid due date. Verbal responses will not otherwise alter the specifications, terms and conditions as stated herein.

Bidding forms, specifications, and all necessary information should be downloaded from the Internet at www.houstontx.gov/purchasing/index.html. By registering and downloading this solicitation document, all updates to this solicitation document will be automatically forwarded via e-mail to any registered bidders. This information may also be obtained from the Supplier Assistance Desk, Strategic Procurement Division, 901 Bagby, Concourse Level, Houston, Texas 77002.

The place of the bid opening may be transferred in accordance with Paragraph (b), (5) of Section 15-3 of The Code of Ordinances, Houston, Texas. The bid-opening meeting may be rescheduled in accordance with Paragraph (b), (6) of said Section 15-3.

The City reserves the right to reject any or all bids, or to accept any bid or combination of bids deemed advantageous to it.

City employees are prohibited from bidding on this solicitation in accordance with the Code of Ordinances Section 15-1.

***CONTENTS:**

- A. OFFER
- B. SCOPE OF WORK/SPECIFICATIONS
- C. GENERAL, SUPPLEMENTARY CONDITIONS AND BOND FORMS

***NOTE 1:** Actual page numbers for each section may change when the solicitation document is downloaded from the Internet or because of letters of clarification. Therefore, bidders must read the solicitation document in its entirety and comply with all the requirements set forth therein.

***NOTE 2:** To be considered for award please submit the electronic bid form and the forms listed in section A, **including the signature page**, which must be signed by a company official authorized to bind the company and a 10% Bid Bond.

SECTION A



FORMAL ONE-TIME BID

CONCRETE MASONRY UNIT (CMU) WALL STABILIZATION REPAIRS FOR THE GENERAL SERVICES DEPARTMENT

Bid No. S63-C25754

NIGP Codes: 910-51, 906-38

To The Honorable Mayor
and City Council Members
of the City of Houston, Texas (the "City"):

The undersigned hereby offers to provide services necessary for **CMU Wall Stabilization Repairs for the Bob Lanier Public Works and Engineering Building, 3rd Floor**. F.O.B. destination point Houston, Texas, in accordance with the City's Specifications and General Terms & Conditions and/or samples/drawings provided herein. When issued by the City of Houston, Letters of Clarification shall automatically become part of this bid document and shall supersede any previous specifications or provisions in conflict with Letters of Clarification. It is the responsibility of the bidder to ensure that it has obtained all such letters. By submitting a bid on this project, bidder shall be deemed to have received all Letters of Clarification and to have incorporated them into the bid.

The City may accept this bid offer by issuance of a Notice of Award Letter and/or a Purchase Order at any time on or before the 120th day following the day this Official Bid Form is opened by the City. This offer shall be irrevocable for 120 days after bid opening or for 90 days after City Council awards the bid, whichever comes last, but this period may be extended by written agreement of the parties.

The City reserves the right to INCREASE quantities during the twelve-month period following the issuance of the first purchase order subject to agreement in writing by the Prime Contractor/Supplier to honor the same bid price.

The City reserves the option, after bids are opened, to adjust the quantities listed on the electronic bid form upward or downward, subject to the availability of funds, and/or make award (s) on a line item basis.

SECTION A

Documents/forms must be downloaded from the City's Website

<http://www.houstontx.gov/purchasing/index.html>

Additional Required Forms to be Included with this bid:

In addition to the electronic Bid Form and the Official Signature Page, the Forms listed in Table 1 **must be completed and submitted to the Office of the City Secretary on or before the date and time the bid is due:**

Table 1
Ownership Information Form
Conflict of Interest Questionnaire
Pay or Play Contract Compliance Acknowledgement Form 1a
Contractor References
10% Bid Bond

Table 2 lists other documents and forms that should be viewed/downloaded from the City's website, but are not required to be submitted with the bid. The City will request these forms, as applicable, to be completed and submitted to the City by the recommended/successful bidder:

Table 2
Formal Instructions for Bid Terms
Drug Forms
Insurance Certificates Over \$50,000.00 / Insurance Endorsements
OCP Insurance Certificate Over \$100,000.00
Pay or Play Form 2 / Certification of Agreement to Comply
Pay or Play Form 3 / List of Subcontractors
Performance, Maintenance and Statutory Payment Bonds
2016 Building Construction Wage Decision

Note:

1. Questions concerning the Bid should be submitted in writing to: City of Houston, Strategic Procurement Division, 901 Bagby, Room B506, Houston, TX 77002, Attn: Yesenia Chuca or via fax: 832-393-8727 or via email (preferred method) to yesenia.chuca@houstontx.gov no later than **5:00 PM, Monday, August 1, 2016.**

PROJECT BUDGET:

Pursuant to City policy concerning the administration and control of project funds, the initial budget for this Project is established at **\$200,000.00** is defined in the contract as "Agreed Estimate". The Architect shall therefore endeavor to plan and design this project in such manner that the Architect's best professional estimate of probable Construction Cost, as defined in the Contract, does not exceed this amount. If at any time during the course of this Project, the Architect's estimate of Construction Cost, for all work designed and specified exceeds this amount, the Architect shall immediately notify the Director, may by written notice increase the Agreed Estimate up to an amount not to exceed the Maximum Total Construction Cost, or any revision thereof, or obtain an agreed upon reduction in the Project scope. For any budget revision there shall be no increase in the Architect's fee.

PERMITS:

Successful Contractor shall be responsible for securing any and all permits for proposed work. Any fee charged for these permits should be the responsibility of the Contractor and not the City of Houston.

CITY BUILDING CODES:

All work performed or equipment installed shall be in strict accordance with the City of Houston Building Codes. The Contractor will immediately correct any deficiencies discovered during work or after completion. Failure to correct deficiencies will result in the City having corrections made at the Contractor's expense.

BID BOND:

The bidder shall be required to provide and submit with its bid a Bid Bond in the amount of 10% of the total amount. The Bid Bond shall be in the same form as that distributed by the City, and attached hereto, all duly executed by this Bidder (as "Principal") and by a corporate surety company licensed to do business in the State of Texas, and if the amount of the bond is greater than \$100,000.00 the surety must hold a certificate of authority from the United States Secretary of the Treasury, or a Cashier's or a Certified check in a like amount. Company or personal checks are not acceptable.

PERFORMANCE BOND and PAYMENT BOND:

The successful Contractor(s) shall be required to provide a Performance and Payment Bond in the total amount (100%) of the bid amount, if the award is in excess of \$25,000.00.

The Performance and/or Payment Bond shall be in the same form as that distributed by the City, and attached hereto, all duly executed by this bidder (as "Principal") and by an incorporated surety company licensed to do business in the State of Texas. If the amount of the bond is greater than \$100,000.00 the surety must hold a certificate of authority from the United States Secretary of the Treasury.

The Contractor(s) shall be required to provide a Performance and/or Payment Bond as outlined above, which will be delivered to the City Purchasing Agent of the City, on or before the tenth (10th) day following the day the bidder receives notice from the City.

MAINTENANCE BOND:

The Contractor shall furnish a Maintenance Bond in the total amount (100%) of the bid amount in the form required by the City. One bond, also referred to as the One Year Maintenance Bond, will be conditioned upon Contractor's repair, replacement or restoration of any work or any portion of the work which is found to be defective or fails in any way to comply strictly with this contract or the plans and specifications for such work

within a period of one (1) year from the date of acceptance of such work by the City Council or after the date that the "CO", or its designee in writing, determines, in a written notice to the Contractor, to be the date upon which the project is both substantially complete and available for the full and beneficial occupancy or use of the City.

QUALITY AND WORKMANSHIP:

The bidder must be able to demonstrate upon request that it has performed satisfactorily, services similar to the services specified herein. The bidder will provide records of warranty and repair services performed for others upon request. The City of Houston shall be the sole judge whether the services performed are similar to the scope of services specified herein.

SITE INSPECTION:

The City of Houston reserves the right to inspect the bidder's current place of business to evaluate equipment condition and capabilities, staff experience, training and capabilities, and storage capabilities as they relate to the performance of this contract.

PROTEST:

A protest shall comply with and be resolved, according to the City of Houston Procurement Manual http://purchasing.houstontx.gov/docs/Procurement_Manual.pdf and rules adopted thereunder. Protests shall be submitted in writing and filed with both, the City Attorney and the Solicitation contact person. A pre-award protest of the ITB shall be received five (5) days prior to the solicitation due date and a post-award protest shall be filed within five (5) days after City Council approval of the contract award.

A protest shall include the following:

- The name, address, e-mail, and telephone number of the protester;
- The signature of the protester or its representative who has the delegated authority to legally bind its company;
- Identification of the ITB description and the ITB or contract number;
- A detailed written statement of the legal and factual grounds of the protest, including copies of relevant documents, etc.; and
- The desired form of relief or outcome, which the protester is seeking

INTERLOCAL AGREEMENTS:

Under the same terms and conditions hereunder, the Contract may be expanded to other government entities through inter-local agreements between the City of Houston and the respective government entity that encompass all or part of the products/services provided under this contract. Separate contracts will be drawn to reflect the needs of each participating entity.

NO CONTACT PERIOD:

Neither bidder(s) nor any person acting on bidder(s)'s behalf shall attempt to influence the outcome of the award by the offer, presentation or promise of gratuities, favors, or anything of value to any appointed or elected official or employee of the City of Houston, their families or staff members. All inquiries regarding the

solicitation are to be directed to the designated City Representative identified on the first page of the solicitation. Upon issuance of the solicitation through the pre-award phase and up to the date the City Secretary publicly posts notice of any City Council agenda containing the applicable award, aside from bidder's formal response to the solicitation, through the pre-award phase, written requests for clarification during the period officially designated for such purpose by the City Representative, neither bidder(s) nor persons acting on their behalf shall communicate with any appointed or elected official or employee of the City of Houston, their families or staff through written or oral means in an attempt to persuade or influence the outcome of the award or to obtain or deliver information intended to or which could reasonably result in an advantage to any bidder. However, nothing in this paragraph shall prevent a bidder from making public statements to the City Council convened for a regularly scheduled session after the official selection has been made and placed on the City Council agenda for action, or to a City Council committee convened to discuss a recommendation regarding the solicitation.

HIRE HOUSTON FIRST:

Designation as a City Business or Local Business

To be designated as a City or Local Business for the purposes of the Hire Houston First Program, as set out in Article XI of Chapter 15 of the Houston City Code, a bidder or proposer must submit the **Hire Houston First Application and Affidavit ("HHF Affidavit")** to the Director of the Mayor's Office of Business Opportunities and receive notice that the submission has been approved prior to award of a contract. Bidders are encouraged to secure a designation prior to submission of a bid or proposal if at all possible.

Download the HHF Affidavit from the Office of Business Opportunities Webpage at the City of Houston e-Government Website at the following location:

<http://www.houstontx.gov/hbsc/hirehoustonfirstaffidavit.pdf>

Award of a Procurement of \$100,000 or More for Purchase of Goods:

THE CITY WILL AWARD THIS PROCUREMENT TO A "CITY BUSINESS," AS THAT TERM IS DEFINED IN SECTION 15-176 OF THE CITY OF HOUSTON CODE OF ORDINANCES ("THE CODE")

- IF THE BID OF THE CITY BUSINESS IS THE LOWEST RESPONSIBLE BID OR IS WITHIN 3% OF THE LOWEST BID RECEIVED, AND
- UNLESS THE USER DEPARTMENT DETERMINES THAT SUCH AN AWARD WOULD UNDULY INTERFERE WITH CONTRACT NEEDS, AS PROVIDED IN SECTION 15-181 OF THE CODE.

IF THERE IS NO BID OF A CITY BUSINESS THAT MEETS THESE CRITERIA, THE CITY WILL AWARD THE PROCUREMENT TO THE LOWEST RESPONSIBLE BIDDER.

Award of Procurement of \$100,000 or More for Purchase of Non-Professional Services , Including Construction Services:

THE CITY WILL AWARD THIS PROCUREMENT TO A "CITY BUSINESS," AS THAT TERM IS DEFINED IN SECTION 15-176 OF THE CITY OF HOUSTON CODE OF ORDINANCES ("THE CODE")

- IF THE BID OF THE LOCAL BUSINESS IS THE LOWEST RESPONSIBLE BID OR IS WITHIN 3% OF THE LOWEST BID RECEIVED, AND
- UNLESS THE USER DEPARTMENT DETERMINES THAT SUCH AN AWARD WOULD UNDULY INTERFERE WITH CONTRACT NEEDS, AS PROVIDED IN SECTION 15-181 OF THE CODE.

IF THERE IS NO BID OF A LOCAL BUSINESS THAT MEETS THESE CRITERIA, THE CITY WILL AWARD THE PROCUREMENT TO THE LOWEST RESPONSIBLE BIDDER

CONTRACTOR'S QUESTIONNAIRE:

In order to receive bid award consideration, the bidder must be able to demonstrate that they are currently providing or have had at least one contract, for **CMU Wall Stabilization Repairs that is similar in size and scope to this contract. Bidder must have references documenting that it has provided generator readiness improvements.** The reference(s) should be included in the space provided below. Please attach another piece of paper if necessary. If references are not included with the bid, the bidder shall be required to provide such references to the City of Houston within five working days from receipt of a written request from the City of Houston to do so. **Bidder's capability and experience shall be a factor in determining the Contractor's responsibility.**

1. Business Name: _____

Business Address: _____

City, State, Zip: _____

Name of Owner/Contact Person: _____

Phone: _____ Fax: _____ Email: _____

No. of Years providing Service to this business: _____

2. Business Name: _____

Business Address: _____

City, State, Zip: _____

Name of Owner/Contact Person: _____

Phone: _____ Fax: _____ Email: _____

No. of Years providing Service to this business: _____

3. Business Name: _____

Business Address: _____

City, State, Zip: _____

Name of Owner/Contact Person: _____

Phone: _____ Fax: _____ Email: _____

No. of Years providing Service to this business: _____

4. Business Name: _____

Business Address: _____

City, State, Zip: _____

Name of Owner/Contact Person: _____

Phone: _____ Fax: _____ Email: _____

4. Business Name: _____

Business Address: _____

City, State, Zip: _____

Name of Owner/Contact Person: _____

Phone: _____ Fax: _____ Email: _____

SECTION B
SCOPE OF WORK/TECHNICAL SPECIFICATIONS

PART ONE - GENERAL

1.0 SCOPE OF WORK SUMMARY:

- 1.1 This Contractor shall be required to provide all labor, materials, equipment, tools, permits, supervision and transportation necessary for Concrete Masonry Unit (CMU) Wall Stabilization Repairs to the Bob Lanier Public Works and Engineering Bldg., 3rd floor, located at 611 Walker St., Houston, TX 77002 in accordance with the scope of work, terms and conditions specified in the solicitation.

2.0 PERFORMANCE TIME:

- 2.1 The Contractor shall have **42 calendar days** to order supplies/equipment and complete all the work associated with and required by the contract in strict accordance with the scope of work/specifications after receipt of the written Notice to Proceed from the City.

3.0 WARRANTY:

- 3.1 The Contractor shall warranty all parts, labor, materials and workmanship for **one year** subsequent to certification and acceptance by the City of Houston.

PART TWO – TECHNICAL SPECIFICATIONS

DIVISION 01
SECTION 01 10 00
TASK ITEMS

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions and Division-01 Specification sections, apply to work of this section.

1.2 TASK ITEM (T.I.) DESCRIPTION

T.I. 0 PROJECT MOBILIZATION

A. Scope of Work

1. Work consists of coordinating, scheduling, obtaining and assembling at construction site all equipment, materials, permits, supplies, manpower and other essentials and incidentals necessary to perform Work defined in this Contract.

T.I. 1 CMU WALL STRENGTHENING (NO OPENING)

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision, and incidentals necessary to install CMU wall strengthening measures at wall sections with no openings. Refer to Detail 1/S2.0 for specific requirements. Refer to Plan Sheets for location of work.

Note: Task Items 1A, 1B, 1C, 1D, and 1E are incidental to this Task Item. Estimated repair quantities are presented in the General Notes section of the Drawings for each of these items to assist in repair cost estimations.

B. Materials

1. Materials shall be as specified in Section "Unit Masonry Assemblies" and Drawings. Materials include grout, reinforcing steel (bars), steel plates, threaded rods, screw anchors, and other items as necessary.
2. Zinc chromate primer.
3. Paint.

C. Execution

1. Contractor shall locate and mark all CMU cell locations to be strengthened. Engineer shall verify strengthening locations prior to start of work.
2. Internal steel exposed during removal process shall be wire-brushed to bare metal, primed, and coated with one coat of zinc chromate primer prior to brick replacement.
3. Install new strengthening measures according to Detail 1/S2.0.
4. Allow 3 to 7 days for grout to cure before applying any coating to the wall.
5. Paint repaired CMU surfaces to match existing conditions.
6. Dispose of all accumulated material and leave premises in clean condition.
7. Unnecessary damage to surrounding CMU shall be repaired by Contractor at no cost to Owner.

T.I. 2 CMU WALL STRENGTHENING (FAN OPENING)

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision, and incidentals necessary to install CMU wall strengthening measures at wall sections with fan openings. Refer to Detail 2/S2.0 for specific requirements. Refer to Plan Sheets for location of work.

Note: Task Items 2A, 2B, 2C, 2D, and 2E are incidental to this Task Item. Estimated repair quantities are presented in the General Notes section of the Drawings for each of these items to assist in repair cost estimations.

B. Materials

1. Materials shall be as specified in Section "Unit Masonry Assemblies" and Drawings. Materials include grout, reinforcing steel (bars), steel plates, threaded rods, screw anchors, and other items as necessary.
2. Zinc chromate primer.

3. Paint.

C. Execution

1. Contractor shall locate and mark all CMU cell locations to be strengthened. Engineer shall verify strengthening locations prior to start of work.
2. Internal steel exposed during removal process shall be wire-brushed to bare metal, primed, and coated with one coat of zinc chromate primer prior to brick replacement.
3. Install new strengthening measures according to Detail 2/S2.0.
4. Allow 3 to 7 days for grout to cure before applying any coating to the wall.
5. Paint repaired CMU surfaces to match existing conditions.
6. Dispose of all accumulated material and leave premises in clean condition.
7. Unnecessary damage to surrounding CMU shall be repaired by Contractor at no cost to Owner.

T.I. 3 CMU WALL STRENGTHENING (DOOR OPENING)

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision, and incidentals necessary to install CMU wall strengthening measures at wall sections with door openings. Refer to Detail 1/S2.1 for specific requirements. Refer to Plan Sheets for location of work.

Note: Task Items 3A, 3B, 3C, 3D, and 3E are incidental to this Task Item. Estimated repair quantities are presented in the General Notes section of the Drawings for each of these items to assist in repair cost estimations.

B. Materials

1. Materials shall be as specified in Section "Unit Masonry Assemblies" and Drawings. Materials include grout, reinforcing steel (bars), steel plates, threaded rods, screw anchors, and other items as necessary.
2. Zinc chromate primer.
3. Paint.

C. Execution

1. Contractor shall locate and mark all CMU cell locations to be strengthened. Engineer shall verify strengthening locations prior to start of work.
2. Internal steel exposed during removal process shall be wire-brushed to bare metal, primed, and coated with one coat of zinc chromate primer prior to brick replacement.
3. Install new strengthening measures according to Detail 1/S2.1.

4. Allow 3 to 7 days for grout to cure before applying any coating to the wall.
5. Paint repaired CMU surfaces to match existing conditions.
6. Dispose of all accumulated material and leave premises in clean condition.
7. Unnecessary damage to surrounding CMU shall be repaired by Contractor at no cost to Owner.

T.I. 4 CMU WALL STRENGTHENING (NORTH WALL ELEVATION)

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision, and incidentals necessary to install CMU wall strengthening measures at the north wall elevation. Refer to Detail 2/S2.1 for specific requirements. Refer to Plan Sheets for location of work.

Note: Task Items 4A, 4B, 4C, 4D, and 4E are incidental to this Task Item. Estimated repair quantities are presented in the General Notes section of the Drawings for each of these items to assist in repair cost estimations.

B. Materials

1. Materials shall be as specified in Section "Unit Masonry Assemblies" and Drawings. Materials include grout, reinforcing steel (bars), steel plates, threaded rods, screw anchors, and other items as necessary.
2. Zinc chromate primer.
3. Paint.

C. Execution

1. **See Drawings for approximate locations of wall-mounted equipment. Repairs have been designed to avoid interference with this equipment, but if interference with any wall-mounted or other equipment is anticipated, notify Engineer and Owner prior to start of work.**
2. Contractor shall locate and mark all CMU cell locations to be strengthened. Engineer shall verify strengthening locations prior to start of work.
3. Internal steel exposed during removal process shall be wire-brushed to bare metal, primed, and coated with one coat of zinc chromate primer prior to brick replacement.
4. Install new strengthening measures according to Detail 2/S2.1.
5. Allow 3 to 7 days for grout to cure before applying any coating to the wall.
6. Paint repaired CMU surfaces to match existing conditions.
7. Dispose of all accumulated material and leave premises in clean condition.
8. Unnecessary damage to surrounding CMU shall be repaired by Contractor at no cost to Owner.

T.I. 5 REBUILD COLLAPSED CMU WALL

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision, and incidentals necessary to rebuild the collapsed CMU wall section identified on the Drawings. Refer to the "Laying New Masonry Wall Segments" portion of Section "Unit Masonry Assemblies" for specific requirements. Refer to Plan Sheets for location of work.

Note: See Drawings for approximate extents of temporary stabilization measures currently installed adjacent to the fan opening in the west wall of Room 325M. Removal of these temporary stabilization measures is incidental to this Task Item. Contractor is responsible for maintaining stability of the CMU walls until completion of repair construction.

Note: Estimated repair quantities are presented in the General Notes section of the Drawings for this Task Item to assist in repair cost estimations.

B. Materials

1. Materials shall be as specified in Section "Unit Masonry Assemblies" and Drawings. Materials include CMU, mortar, reinforcing steel (joint reinforcement), and other items as necessary.

C. Execution

1. **Remove temporary stabilization measures (plywood, steel angles, and miscellaneous connection plates and anchors). Dispose of these materials as appropriate.**
2. **Provide temporary bracing and/or shoring as required to maintain wall stability during construction.**
3. Rebuild collapsed CMU wall segment using new CMU blocks. Replace all missing CMU blocks and any CMU blocks at the boundary of the collapsed wall portion that are fractured, cracked, broken, or otherwise unsound. Refer to the "Laying New Masonry Wall Segments" portion of Section "Unit Masonry Assemblies" for specific requirements.
4. Install joint reinforcement in every other new horizontal mortar bed joint (16 inch spacing).
5. The face of the rebuilt CMU wall segment should be flush with adjacent existing CMU wall segments.
6. Rebuilt CMU wall segment should extend to the same elevation as adjacent existing CMU wall segments.
7. Proceed with CMU wall strengthening measures (Task Items 1, 2, and 3) at the rebuilt CMU wall segment. See those Task Items for specific requirements.

T.I. 6 CMU REPLACEMENT

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, staging, supervision, and incidentals necessary for local CMU removal and replacement due to fractures, cracks, broken, and unsound CMU. Refer to Detail 1/S2.4 for specific requirements. Refer to Plan Sheets for location of work.

Note: Estimated repair quantities are presented in the General Notes section of the Drawings for this Task Item to assist in repair cost estimations.

B. Materials

1. CMU and mortar shall be as specified in Section "Unit Masonry Assemblies."
2. Zinc chromate primer.
3. Paint.

C. Execution

1. Contractor shall locate and mark all units to be replaced. Engineer shall verify replacement locations prior to start of work.
2. Contractor shall locate all existing CMU with a crack width exceeding 1/32", spalls, all structurally unsound CMU, and CMU damaged during removal work.
3. Internal steel exposed during removal process shall be wire-brushed to bare metal, primed, and coated with one coat of zinc chromate primer prior to brick replacement.
4. New CMU shall be laid in a full bed of mortar. All CMU repair shall be flush with existing.
5. New CMU is to be toothed into existing brick work.
6. Allow 3 to 7 days for mortar to cure before applying any coating to the wall.
7. Paint repaired CMU surfaces to match existing conditions.
8. Dispose of all accumulated material and leave premises in clean condition.
9. Masonry surfaces that become dirty or smeared during joint cutting and repointing of joint surfaces shall be cleaned with bristle brushes and plain water.
10. Unnecessary damage to surrounding CMU shall be repaired by Contractor at no cost to Owner.

T.I. 7 CMU TUCKPOINTING

A. Scope of Work

1. Work consists of furnishing all labor, materials, equipment, supervision, and incidentals necessary to tuckpoint defective, cracked, broken or eroded joints in existing CMU work. Refer to Detail 2/S2.4 for specific requirements.

Note: Estimated repair quantities are presented in the General Notes section of the Drawings for this Task Item to assist in repair cost estimations.

B. Materials

1. Mortar shall be as specified in Section "Unit Masonry Assemblies."
2. Paint.

C. Execution

1. Contractor shall locate and mark all work areas.
2. All defective, cracked, broken or eroded masonry joints shall be tuckpointed.
3. Joints to be tuckpointed shall be cut back to depth of 3/4 in. to full depth of deterioration. Use mechanically operated blades only to perform cutting. Joint at back of cut shall have a square shoulder. Remove all mortar from upper and lower surfaces and sides of mortar being prepared.
4. Contractor shall flush all mortar joints thoroughly with air under pressure prior to tuckpointing to remove all dust, dirt, and laitance.
5. Tuckpointing shall be performed using Type N mortar. Mortar shall be dry and mixed thoroughly prior to adding sand. Add one-half required mixing water and allow to stand 1 hour, then add balance of mixing water.
6. Press mortar into prepared joint using pointing tool 0.125 in. smaller than width of joint until joint is packed full. Finish point joint with pointing tool at least 0.125 in. wider than prepared joint.
7. Prior to initial set of mortar, tool joints to match existing.
8. Allow 3 to 7 days for mortar to harden prior to cleaning CMU or brick wall.
9. Paint mortar to match existing conditions.
10. Dispose of all accumulated material and leave premises in clean condition.
11. Masonry surfaces that become dirty or smeared during joint cutting and repointing of joint surfaces shall be cleaned with bristle brushes and plain water.
12. Unnecessary damage to surrounding brick or CMU shall be repaired by contractor at no cost to owner.

END OF SECTION 01 10 00

**DIVISION 01
SECTION 01 33 00
SUBMITTAL PROCEDURES**

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other miscellaneous submittals.
- B. Related Sections include the following:
1. Division 01 Section "Quality Control" for submitting test and inspection reports and Delegated-Design Submittals.
 2. Division 01 Section "Closeout Procedures" for submitting warranties.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Engineer's responsive action.
- B. Informational Submittals: Written information that does not require Engineer's approval. Submittals may be rejected for not complying with requirements.

1.4 SUBMITTAL PROCEDURES

- A. Resubmittals: Engineer will review each of Contractor's shop drawings and/or submittal data the initial time and, should resubmittal be required, one additional time to verify that reasons for resubmittal have been addressed by Contractor and corrections made. Resubmittal changes/revisions/corrections shall be circled. Engineer will review only circled items and will not be responsible for non-circled changes/revisions/corrections and additions. Should additional resubmittals be required, Contractor shall reimburse Owner for all costs incurred, including the cost of Engineer's services made necessary to review such additional resubmittals. Owner will in turn reimburse Engineer.
- B. General: Electronic copies of CAD Drawings of the Contract Drawings will not be provided by Engineer for Contractor's use in preparing submittals.
- C. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.

- a Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- D. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Engineer's receipt of submittal.
 - 1. Initial Review: Allow 7 days for initial review of each submittal. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. Engineer will advise Contractor when a submittal being processed must be delayed for coordination.
- E. Identification: Place a permanent label or title block on each submittal for identification.
 - 1. Indicate name of firm or entity that prepared each submittal on label or title block.
 - 2. Provide a space approximately 4 by 5 inches on label or beside title block to record Contractor's review and approval markings and action taken by Engineer.
 - 3. Include the following information on label for processing and recording action taken:
 - a Project name.
 - b Date.
 - c Name and address of Engineer.
 - d Name and address of Contractor.
 - e Name and address of subcontractor.
 - f Name and address of supplier.
 - g Name of manufacturer.
 - h Unique identifier, including revision number.
 - i Number and title of appropriate Specification Section.
 - j Drawing number and detail references, as appropriate.
 - k Other necessary identification.
- F. Deviations: Highlight, encircle, or otherwise identify deviations from the Contract Documents on submittals.
- G. Additional Copies: Unless additional copies are required for final submittal, and unless Engineer observes noncompliance with provisions of the Contract Documents, initial submittal may serve as final submittal.
 - 1. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Engineer.
 - 2. Additional copies submitted for maintenance manuals will not be marked with action taken and will be returned.
- H. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Engineer will return submittals, without review, received from sources other than Contractor.
 - 1. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Engineer on previous submittals, and deviations from requirements of the Contract Documents, including minor variations and limitations. Include the same label information as the related submittal.

2. Include Contractor's certification stating that information submitted complies with requirements of the Contract Documents.
- I. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- J. Use for Construction: Use only final submittals with mark indicating action taken by Engineer in connection with construction.

PART 2 – PRODUCTS

2.1 ACTION SUBMITTALS

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
 1. Number of Copies: Submit an electronic copy of each submittal, unless otherwise indicated. Engineer will return a marked up electronic copy. Mark up and retain this returned copy as a Project Record Document.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
 2. Mark each copy of each submittal to show which products and options are applicable.
 3. Include the following information, as applicable:
 - a Manufacturer's written recommendations.
 - b Manufacturer's product specifications.
 - c Manufacturer's installation instructions.
 - d Manufacturer's catalog cuts.
 - e Mill reports.
 - f Standard product operating and maintenance manuals.
 - g Compliance with recognized trade association standards.
 - h Compliance with recognized testing agency standards.
 - i Application of testing agency labels and seals.
 - j Notation of coordination requirements.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
 1. Preparation: Include the following information, as applicable:
 - a Dimensions.
 - b Identification of products.
 - c Fabrication and installation drawings.
 - d Shopwork manufacturing instructions.
 - e Templates and patterns.

- f Schedules.
- g Compliance with specified standards.
- h Notation of coordination requirements.
- i Notation of dimensions established by field measurement.

2.2 INFORMATIONAL SUBMITTALS

- A. General: Prepare and submit Informational Submittals required by other Specification Sections.
 - 1. Number of Copies: Submit an electronic copy of each submittal, unless otherwise indicated. Engineer will not return a copy.
 - 2. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
 - 3. Test and Inspection Reports: Comply with requirements in Division 01 Section "Quality Control."
- B. Contractor's Construction Schedule: Provide Level 3 Schedule with progress monitoring and project control level unless Owner has more stringent scheduling requirements.
- C. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of Engineers and owners, and other information specified.
- D. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements.
- E. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.
- F. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements and, where required, is authorized for this specific Project.
- G. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements. Include evidence of manufacturing experience where required.
- H. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements.
- I. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements.
- J. Preconstruction Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements.

- K. Compatibility Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- L. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements.
- M. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- N. Research/Evaluation Reports: Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
1. Name of evaluation organization.
 2. Date of evaluation.
 3. Time period when report is in effect.
 4. Product and manufacturers' names.
 5. Description of product.
 6. Test procedures and results.
 7. Limitations of use.
- O. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements in Division 01 Section "Closeout Procedures."
- P. Design Data: Prepare written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
- Q. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:
1. Preparation of substrates.
 2. Required substrate tolerances.
 3. Sequence of installation or erection.
 4. Required installation tolerances.
 5. Required adjustments.
 6. Recommendations for cleaning and protection.
- R. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections. Include the following, as applicable:
- 1 Name, address, and telephone number of factory-authorized service representative making report.

- 2 Statement on condition of substrates and their acceptability for installation of product.
- 3 Statement that products at Project site comply with requirements.
- 4 Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
- 5 Results of operational and other tests and a statement of whether observed performance complies with requirements.
- 6 Statement whether conditions, products, and installation will affect warranty.
- 7 Other required items indicated in individual Specification Sections.

2.3 REQUESTS FOR INFORMATION

- A. Engineer reserves the right to reject, unprocessed, any RFI that the Engineer, at its sole discretion, deems already answered in the Contract Documents.

PART 3 – EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Review each submittal and check for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Engineer.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

END OF SECTION 01 33 00

**DIVISION 01
SECTION 01 45 00
QUALITY CONTROL**

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for quality control services.
- B. Quality control services include inspections, tests and related actions including reports, performed by independent agencies, governing authorities, and the Contractor. They do not include Contract enforcement activities performed by Engineer.
- C. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve the Contractor of responsibility for compliance with Contract Document requirements.
- D. Related Sections: Following Sections contain requirements that relate to this Section:
1. Division 01 Section "Cutting and Patching" specifies requirements for repair and restoration of construction disturbed by inspection and testing activities.
 2. Division 01 Section "Submittal Procedures" specifies requirements for development of a schedule of required tests and inspections.

1.3 RESPONSIBILITIES

- A. Contractor Responsibilities:
1. Retesting: Contractor is responsible for retesting where results of required inspections, tests or similar services prove unsatisfactory and do not indicate compliance with Contract Document requirements, regardless of whether the original test was the Contractor's responsibility.
 - a. Cost of retesting construction revised or replaced by the Contractor is the Contractor's responsibility, where required tests were performed on original construction.
 2. Associated Services: Cooperate with agencies performing required inspections, tests and similar services and provide reasonable auxiliary services as requested. Notify the agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include but are not limited to:
 - a. Provide access to the Work.
 - b. Furnish incidental labor and facilities necessary to facilitate inspections and tests.
 - c. Take adequate quantities of representative samples of materials that require testing or assist the agency in taking samples.
 - d. Provide facilities for storage and curing of test samples.

- e. Deliver samples to testing laboratories.
 - f. Provide the agency with a preliminary design mix proposed for use for material mixes that require control by the testing agency.
 - g. Provide security and protection of samples and test equipment at the Project Site.
- B. Owner Responsibilities: Owner will provide inspections, tests and similar quality control services specified to be performed by independent agencies and not by the Contractor, except where they are specifically indicated as the Contractor's responsibility or are provided by another identified entity. Costs for these services are not included in the Contract Sum.
 - 1. Owner will employ and pay for the services of an independent agency, testing laboratory or other qualified firm to perform services which are the Owner's responsibility.
- C. Coordination: Contractor and each agency engaged to perform inspections, tests and similar services shall coordinate the sequence of activities to accommodate required services with a minimum of delay. In addition Contractor and each agency shall coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.
 - 1. Contractor is responsible for scheduling times for inspections, tests, taking samples and similar activities.

1.4 SUBMITTALS

- A. Testing Agency shall submit a certified written report of each inspection, test or similar service, to Engineer, in duplicate, unless Contractor is responsible for the service. If Contractor is responsible for the service, submit a certified written report of each inspection, test or similar service through the Contractor, in duplicate.
 - 1. Submit additional copies of each written report directly to the governing authority, when the authority so directs.
 - 2. Report Data: Written reports of each inspection, test or similar service shall include, but not be limited to:
 - a. Date of issue.
 - b. Project title and number.
 - c. Name, address and telephone number of testing agency.
 - d. Dates and locations of samples and tests or inspections.
 - e. Names of individuals making the inspection or test.
 - f. Designation of the Work and test method.
 - g. Identification of product and Specification Section.
 - h. Complete inspection or test data.
 - i. Test results and interpretations of test results.
 - j. Comments or professional opinion as to whether inspected or tested Work complies with Contract Document requirements.
 - k. Name and signature of laboratory inspector.
 - l. Recommendations on retesting.

1.5 QUALITY ASSURANCE

- A. Qualification for Testing Agencies: Engage testing agencies, including independent testing laboratories, which are prequalified as complying with "Recommended Requirements for Independent

Laboratory Qualification" by the American Council of Independent Laboratories, and which specialize in the types of inspections and tests to be performed.

1. Each independent testing agency engaged on the Project shall be authorized by authorities having jurisdiction to operate in the State in which the Project is located.

PART 2 - PRODUCTS (NOT APPLICABLE).

PART 3 – EXECUTION

3.1 REPAIR AND PROTECTION

- A. General: Upon completion of inspection, testing, sample taking and similar services, repair damaged construction and restore substrates and finishes to eliminate deficiencies, including deficiencies in visual qualities of exposed finishes. Comply with Contract Document requirements for "Cutting and Patching."
- B. Protect construction exposed by or for quality control service activities, and protect repaired construction.
- C. Repair and protection is the Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing or similar services.

END OF SECTION 01 45 00

**DIVISION 01
SECTION 01 74 23
FINAL CLEANING**

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for final cleaning at Substantial Completion.
1. Special cleaning requirements for specific elements of Work are included in appropriate Sections of Division 04.
- B. General Project closeout requirements are included in Section "Closeout Procedures."
- C. Environmental Requirements: Conduct cleaning and waste disposal operations in compliance with local laws and ordinances. Comply fully with federal and local environmental and anti pollution regulations.
1. Do not dispose of volatile wastes such as mineral spirits, oil or paint thinner in storm or sanitary drains.
 2. Burning or burying of debris, rubbish or other waste material on the premises will not be permitted.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by the manufacturer or fabricator of surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property, or that might damage finished surfaces.

PART 3 – EXECUTION

3.1 FINAL CLEANING

- A. General: Provide final cleaning operations when indicated. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit of Work to the condition expected from commercial building cleaning and maintenance program. Comply with manufacturer's instructions.
1. Clean Project site in areas disturbed by construction activities of rubbish, waste materials, litter and foreign substances. Sweep paved areas broom clean. Remove petro chemical spills, stains and other foreign deposits.

2. Remove tools, construction equipment, machinery and surplus material from the site.
 3. Clean exposed interior hard surfaced finishes to a dirt free condition, free of stains, films and similar foreign substances. Restore reflective surfaces to their original condition.
 4. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics and similar spaces.
 5. Broom clean concrete floors in unoccupied spaces.
 6. Remove labels that are not permanent labels.
 7. Touch up and otherwise repair and restore marred exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored, or that show evidence of repair or restoration. Do not paint over "UL" and similar labels, including mechanical and electrical name plates.
 8. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication, paint and mortar droppings and other foreign substances.
 9. Leave Project clean and ready for occupancy.
- B. Removal of Protection: Remove temporary protection and facilities installed during construction to protect previously completed installations during remainder of construction period.
- C. Compliances: Comply with governing regulations and safety standards for cleaning operations. Remove waste materials from the site and dispose of in a lawful manner.
1. Where extra materials of value remain after completion of associated construction have become Owner's property, dispose of these materials as directed.

END OF SECTION 01 74 23

**DIVISION 01
SECTION 01 77 00
CLOSEOUT PROCEDURES**

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for project closeout, including but not limited to:
1. Inspection procedures.
 2. Submittal of warranties.
 3. Final cleaning.
- B. Closeout requirements for specific construction activities are included in appropriate Sections in Division 04.

1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for certification of Substantial Completion, complete following. List exceptions in request.
1. Advise Owner of pending insurance change over requirements.
 2. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications and similar documents.
 3. Obtain and submit releases enabling Owner unrestricted use of Work and access to services and utilities; include occupancy permits, operating certificates and similar releases.
 4. Submit maintenance manuals, final project photographs, damage or settlement survey, property survey, and similar final record information.
 5. Deliver tools, spare parts, extra stock, and similar items.
 6. Complete start up testing of systems, and instruction of Owner's operating and maintenance personnel. Discontinue or change over and remove temporary facilities from site, along with construction tools, mock ups, and similar elements.
- B. Inspection Procedures: On receipt of request for inspection, Engineer will either proceed with inspection or advise Contractor of unfilled requirements. Engineer will prepare Certificate of Substantial Completion following inspection, or advise Contractor of construction that must be completed or corrected before certificate will be issued.
1. Engineer will repeat inspection when requested and assured that Work has been substantially completed.

2. Engineer will provide one repeat inspection under its contract with Owner. Subsequent inspections shall be at Contractor's expense.
3. Results of completed inspection will form basis of requirements for final acceptance.

1.4 FINAL ACCEPTANCE

- A. Preliminary Procedures: Before requesting final inspection for certification of final acceptance, complete the following. List exceptions in request.
 1. Submit certificates of insurance for products and completed operations where required.
 2. Submit certified copy of Engineer's final inspection list of items to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance, and list has been endorsed and dated by Engineer.
 3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.

PART 2 - PRODUCTS (NOT APPLICABLE).

PART 3 – EXECUTION

3.1 CLOSEOUT PROCEDURES

- A. Operating and Maintenance Instructions: Arrange for each installer of equipment or materials that require regular maintenance to meet with Owner's personnel to provide instruction in proper operation and maintenance. If installers are not experienced in procedures, provide instruction by manufacturer's representatives.

END OF SECTION 01 77 00

DIVISION 01
SECTION 01 78 36
PRODUCT WARRANTIES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for warranties required by Contract Documents, including manufacturers' standard warranties on products and special warranties.
1. Refer to General Conditions for terms of Contractor's period for correction of Work.
- B. Related Sections: Following Sections contain requirements that relate to this Section:
1. Division 01 Section "Submittal Procedures" specifies procedures for submitting warranties.
 2. Division 01 Section "Closeout Procedures" specifies contract closeout procedures.
 3. Specific requirements for warranties on products and installations specified to be warranted are included in appropriate Sections in Division 04.
 4. Certifications and other commitments and agreements for continuing services to Owner are specified elsewhere in Contract Documents.
- C. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of warranty on Work that incorporates products. Manufacturer's disclaimers and limitations on product warranties do not relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

1.3 WARRANTY REQUIREMENTS

- A. Related Damages and Losses: When correcting failed or damaged warranted construction, remove and replace construction that has been damaged as result of such failure or must be removed and replaced to provide access for correction of warranted construction.
- B. Reinstatement of Warranty: When Work covered by warranty has failed and been corrected by replacement or rebuilding, reinstate warranty by written endorsement. Reinstated warranty shall be equal to original warranty with equitable adjustment for depreciation.
- C. Replacement Cost: Upon determination that Work covered by warranty has failed replace or rebuild Work to an acceptable condition complying with requirements of Contract Documents. Contractor is responsible for cost of replacing or rebuilding defective Work regardless of whether Owner has benefited from use of Work through portion of its anticipated useful service life.
- D. Owner's Recourse: Expressed warranties made to Owner are in addition to implied warranties, and shall not limit duties, obligations, rights and remedies otherwise available under law. Expressed

warranty periods shall not be interpreted as limitations on the time in which the Owner can enforce such other duties, obligations, rights, or remedies.

1. Rejection of Warranties: Owner reserves right to reject warranties and to limit selection to products with warranties not in conflict with requirements of Contract Documents.

- E. Where Contract Documents require a special warranty, or similar commitment on Work or part of Work, Owner reserves the right to refuse to accept Work, until Contractor presents evidence that entities required to countersign such commitments are willing to do so.

1.4 SUBMITTALS

- A. Submit written warranties to Engineer prior to date certified for Substantial Completion. If Engineer's Certificate of Substantial Completion designates commencement date for warranties other than date of Substantial Completion for Work, or designated portion of Work, submit written warranties upon request of Engineer.
- B. When designated portion of Work is completed and occupied or used by Owner, by separate agreement with Contractor during construction period, submit properly executed warranties to Engineer within 15 days of completion of that designated portion of Work.
 1. When Contract Documents require Contractor, or Contractor and subcontractor, supplier or manufacturer to execute a special warranty, prepare written document that contains appropriate terms and identification, ready for execution by required parties. Submit draft to Owner through Engineer/Architect for approval prior to final execution.
 2. Specific content requirements and particular requirements for submittal of special warranties are included in appropriate Sections in Division 04.

END OF SECTION 01 78 36

DIVISION 04
SECTION 04 81 00
UNIT MASONRY ASSEMBLIES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes unit masonry assemblies consisting of the following:
1. Concrete masonry units (CMU's).
 2. Mortar and grout.
 3. Reinforcing steel.
 4. Ties and anchors.

1.3 DEFINITIONS

- A. Reinforced Masonry: Masonry containing reinforcing steel in grouted cells.

1.4 PERFORMANCE REQUIREMENTS

- A. Provide unit masonry that develops a net-area compressive strength (f'm) of 1,500 pounds per square inch (psi) at 28 days.

1.5 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: For the following:
1. Reinforcing Steel: Detail bending and placement of unit masonry reinforcing bars. Comply with ACI 315, "Details and Detailing of Concrete Reinforcement." Show elevations of reinforced walls.
- C. Material Certificates: Include statements of material properties indicating compliance with requirements including compliance with standards and type designations within standards. Provide for each type and size of the following:
1. Cementitious materials. Include brand, type, and name of manufacturer.
 2. Pre-blended, dry mortar mixes. Include description of type and proportions of ingredients.
 3. Grout mixes. Include description of type and proportions of ingredients.
 4. Reinforcing bars.
 5. Anchors, ties, and metal accessories.

- D. Mix Designs: For each type of mortar and grout. Include description of type and proportions of ingredients.
1. Include test reports, per ASTM C 780, for mortar mixes required to comply with property specification.
 2. Include test reports, per ASTM C 1019, for grout mixes required to comply with compressive strength requirement.

1.6 QUALITY ASSURANCE

- A. Source Limitations for Masonry Units: Obtain exposed masonry units of a uniform texture and color, or a uniform blend within the ranges accepted for these characteristics, through one source from a single manufacturer for each product required.
- B. Source Limitations for Mortar Materials: Obtain mortar ingredients of a uniform quality, including color for exposed masonry, from a single manufacturer for each cementitious component and from one source or producer for each aggregate.
- C. Preconstruction Testing Service: Owner will engage a qualified independent testing agency to perform preconstruction testing indicated below. Payment for these services will be made by Owner. Retesting of materials that fail to meet specified requirements shall be done at Contractor's expense.
1. Concrete Masonry Unit Test: For each type of unit required, per ASTM C 140.
 2. Mortar Test (Property Specification): For each mix required, per ASTM C 780.
 3. Grout Test (Compressive Strength): For each mix required, per ASTM C 1019.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store masonry units on elevated platforms in a dry location. If units are not stored in an enclosed location, cover tops and sides of stacks with waterproof sheeting, securely tied. If units become wet, do not install until they are dry.
- B. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.
- C. Store aggregates where grading and other required characteristics can be maintained and contamination avoided.
- D. Deliver pre-blended, dry mortar mix in moisture-resistant containers designed for lifting and emptying into dispensing silo. Store pre-blended, dry mortar mix in delivery containers on elevated platforms, under cover, and in a dry location or in a metal dispensing silo with weatherproof cover.
- E. Store masonry accessories, including metal items, to prevent corrosion and accumulation of dirt and oil.

1.8 PROJECT CONDITIONS

- A. Stain Prevention: Prevent grout and mortar from staining the face of masonry to be left exposed or painted. Immediately remove grout and mortar that come in contact with such masonry.
1. Protect base of walls from mortar splatter by spreading coverings on ground and over wall

surface.

2. Protect sills, ledges, and projections from mortar droppings.
3. Protect surfaces of window and door frames, as well as similar products with painted and integral finishes, from mortar droppings.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, products specified.
 2. Products: Subject to compliance with requirements, provide one of the products specified.
 3. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, manufacturers specified.
 4. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified.

2.2 MASONRY UNITS, GENERAL

- A. Defective Units: Referenced masonry unit standards may allow a certain percentage of units to exceed tolerances and to contain chips, cracks, or other defects exceeding limits stated in the standard. Do not use units where such defects, including dimensions that vary from specified dimensions by more than stated tolerances, will be exposed in the completed Work or will impair the quality of completed masonry.

2.3 CONCRETE MASONRY UNITS (CMU's)

- A. Shapes: Provide shapes indicated and as follows:
1. Provide special shapes for lintels, corners, jambs, sashes, movement joints, headers, bonding, and other special conditions.
 2. Provide square-edged units for outside corners, unless otherwise indicated.
- B. Concrete Masonry Units: ASTM C 55 or ASTM C 90.
1. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 1500 psi.
 2. Size (Width): Manufactured to dimensions 3/8 inch less than nominal dimensions.

2.4 MORTAR AND GROUT MATERIALS

- A. Portland Cement: ASTM C 150, Type I or II. Provide natural color or white cement.
- B. Hydrated Lime: ASTM C 207, Type S.
- C. Portland Cement-Lime Mix: Packaged blend of Portland cement complying with ASTM C 150, Type I or Type III, and hydrated lime complying with ASTM C 207, Type S.
- D. Aggregate for Mortar: ASTM C 144.
- E. Aggregate for Grout: ASTM C 404.
- F. Water: Potable.

2.5 REINFORCEMENT

- A. Uncoated Steel Reinforcing Bars: ASTM A 615, Grade 60.
- B. Masonry Joint Reinforcement, General: ASTM A 951.
 - 1. Interior Walls: Hot-dip galvanized, carbon steel.
 - 2. Wire Size for Side Rods: W1.7 or 0.148-inch diameter.
 - 3. Wire Size for Cross Rods: W1.7 or 0.148-inch diameter.
 - 4. Spacing of Cross Rods, Tabs, and Cross Ties: Not more than 16 inches o.c.
 - 5. Provide in lengths of not less than 10 feet, with prefabricated corner and tee units.
- C. Masonry Joint Reinforcement for Single-Wythe Masonry: Either ladder or truss type with single pair of side rods.

2.6 TIES AND ANCHORS

- A. Materials: Provide ties and anchors specified in subsequent paragraphs that are made from materials that comply with subparagraph below, unless otherwise indicated.
 - 1. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.
- B. Anchors for Connecting to Structure: Fabricate from steel bars bent to configuration indicated.
 - 1. Corrosion Protection: Hot-dip galvanized to comply with ASTM A 153/A 153M.

2.7 MORTAR AND GROUT MIXES

- A. General: Do not use admixtures, including pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures, unless otherwise indicated.
 - 1. Do not use calcium chloride in mortar or grout.
 - 2. Limit cementitious materials in mortar to Portland cement and lime.
- B. Pre-blended, Dry Mortar Mix: Furnish dry mortar ingredients in form of a pre-blended mix. Measure quantities by weight to ensure accurate proportions, and thoroughly blend ingredients before delivering to Project site.

- C. Mortar for Unit Masonry: Comply with ASTM C 270, Property Specification. Provide the following types of mortar for applications stated unless another type is indicated or needed to provide required compressive strength of masonry.
 - 1. For reinforced masonry, use Type M or S.
 - 2. For tuckpointing, use Type N.
- D. Grout for Unit Masonry: Comply with ASTM C 476.
 - 1. Use grout of type indicated or, if not otherwise indicated, of type (fine or coarse) that will comply with Table 1.15.1 in ACI 530.1/ASCE 6/TMS 602 for dimensions of grout spaces and pour height.
 - 2. Provide grout with a slump of 8 to 11 inches as measured according to ASTM C 143/C 143M.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work.
 - 1. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of work.
- B. Before installation, examine rough-in and built-in construction for piping systems to verify actual locations of piping connections.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. Thickness: Build single-Wythe walls to actual widths of masonry units, using units of widths indicated.
- B. Use full-size units without cutting if possible. If cutting is required to provide a continuous pattern or to fit adjoining construction, cut units with motor-driven saws; provide clean, sharp, unchipped edges. Allow units to dry before laying unless wetting of units is specified. Install cut units with cut surfaces and, where possible, cut edges concealed.
- C. Select and arrange units for exposed unit masonry to produce a uniform blend of colors and textures.
- D. Matching Existing Masonry: Match coursing, bonding, color, and texture of existing masonry.
- E. Comply with construction tolerances in ACI 530.1/ASCE 6/TMS 602 and with the following:
 - 1. For conspicuous vertical lines, such as external corners, door jambs, reveals, and expansion and control joints, do not vary from plumb by more than 1/8 inch in 10 feet, 1/4 inch in 20 feet, or 1/2 inch maximum.
 - 2. For conspicuous horizontal lines, such as lintels, sills, parapets, and reveals, do not vary from level by more than 1/8 inch in 10 feet, 1/4 inch in 20 feet, or 1/2 inch maximum.

3. For faces of adjacent exposed masonry units, do not vary from flush alignment by more than 1/16 inch except due to warpage of masonry units within tolerances specified for warpage of units.

3.3 LAYING NEW MASONRY WALL SEGMENTS

- A. Lay out new wall segments in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of openings, movement-type joints, returns, and offsets. Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at other locations.
- B. Bond Pattern for Exposed Masonry: Unless otherwise indicated, lay exposed masonry in running bond to match the existing bond pattern; do not use units with less than nominal 4-inch horizontal face dimensions at corners or jambs.
- C. Stopping and Resuming Work: Stop work by racking back units in each course from those in course below; do not tooth. When resuming work, clean masonry surfaces that are to receive mortar, remove loose masonry units and mortar, and wet brick if required before laying fresh masonry.
- D. Built-in Work: As construction progresses, build in items specified in this and other Sections. Fill in solidly with masonry around built-in items.
- E. Fill space between steel frames and masonry solidly with mortar, unless otherwise indicated.
- F. Build new masonry wall segments full height of story to underside of solid floor or roof structure above, unless otherwise indicated.
 1. Fasten partition top anchors to structure above per drawings.

3.4 MORTAR BEDDING AND JOINTING

- A. Lay hollow concrete masonry units as follows:
 1. With face shells fully bedded in mortar and with head joints of depth equal to bed joints.
 2. With webs fully bedded in mortar in grouted masonry.
- B. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness, unless otherwise indicated.

3.5 MASONRY JOINT REINFORCEMENT

- A. General: Install entire length of longitudinal side rods in mortar with a minimum cover of 1/2 inch. Lap reinforcement a minimum of 6 inches.
 1. Space reinforcement not more than 16 inches o.c.
 2. Unless noted otherwise on the drawings, provide reinforcement not more than 8 inches above and below wall openings and extending 12 inches beyond openings.
 - a. Reinforcement above is in addition to continuous reinforcement.

- B. Provide continuity at wall intersections by using prefabricated T-shaped units.
- C. Cut and bend reinforcing units as directed by manufacturer for continuity at corners, returns, offsets, pipe enclosures, and other special conditions.

3.6 ANCHORING MASONRY TO STRUCTURAL MEMBERS

- A. Anchor masonry to structural members where masonry abuts or faces structural members to comply with the following:
 - 1. For new masonry wall segments, provide an open space to match existing conditions for adjacent walls, unless otherwise indicated. This space between masonry and structural member is typically not less than 1/2 inch in width. Keep open space free of mortar and other rigid materials.
 - 2. Anchor masonry to structural members with anchors specified in drawings.
 - 3. Space anchors as indicated in drawings.

3.7 REINFORCED UNIT MASONRY INSTALLATION

- A. Placing Reinforcement: Comply with requirements in ACI 530.1/ASCE 6/TMS 602.
- B. Grouting: Do not place grout until entire height of masonry to be grouted has attained enough strength to resist grout pressure.
 - 1. Comply with requirements in ACI 530.1/ASCE 6/TMS 602 for cleanouts and for grout placement, including minimum grout space and maximum pour height.
 - 2. Limit height of vertical grout pours to not more than 60 inches.

3.8 FIELD QUALITY CONTROL

- A. Inspectors: Owner will engage qualified independent inspectors to perform inspections and prepare reports. Allow inspectors access to scaffolding and work areas, as needed to perform inspections.
- B. Testing Agency: Owner will engage a qualified independent testing and inspecting agency to perform field tests and inspections indicated below and prepare test reports:
 - 1. Payment for these services will be made by Owner.
 - 2. Retesting of materials failing to comply with specified requirements shall be done at Contractor's expense.
- C. Testing Frequency: One set of tests for each 5000 sq. ft. of wall area or portion thereof.
- D. Concrete Masonry Unit Test: For each type of unit provided, per ASTM C 140.
- E. Mortar Test (Property Specification): For each mix provided, per ASTM C 780.
- F. Grout Test (Compressive Strength): For each mix provided, per ASTM C 1019.

3.9 REPAIRING, POINTING, AND CLEANING

- A. Remove and replace masonry units that are loose, chipped, broken, stained, or otherwise damaged or that do not match adjoining units. Install new units to match adjoining units; install in fresh mortar, pointed to eliminate evidence of replacement.
- B. Pointing: During the tooling of joints, enlarge voids and holes and completely fill with mortar. Point up joints, including corners, openings, and adjacent construction, to provide a neat, uniform appearance.
- C. In-Progress Cleaning: Clean unit masonry as work progresses by dry brushing to remove mortar fins and smears before tooling joints.
- D. Final Cleaning: After mortar is thoroughly set and cured, clean exposed masonry as follows:
 - 1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.
 - 2. Test cleaning methods on sample wall panel; leave one-half of panel unlearned for comparison purposes. Obtain Engineer's approval of sample cleaning before proceeding with cleaning of masonry.
 - 3. Clean masonry with a proprietary acidic cleaner applied according to manufacturer's written instructions.
 - 4. Clean concrete masonry by cleaning method indicated in NCMA TEK 8-2A applicable to type of stain on exposed surfaces.

3.10 MASONRY WASTE DISPOSAL

- A. Masonry Waste: Remove masonry waste and legally dispose of off Owner's property.

END OF SECTION 04 81 00

DIVISION 07
SECTION 07 21 00
CEILING AND WALL INSULATION

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes unit masonry assemblies consisting of the following:
 - 1. Insulation Board.

1.3 DEFINITIONS

- A. Insulation Board: Is a thermal and acoustical insulation product made from inorganic glass fibers preformed into boards bonded by a thermosetting resin.

1.4 PERFORMANCE REQUIREMENTS

- A. Greenguard Certification
- B. This product should be certified and meet EUCB requirements.
- C. Temperature range should meet ASTM C 411, operating temperatures from 0- 450 OF

1.5 SUBMITTALS

- A. Product Data: Mansion Insulation/ Equal or Better.
- B. Material Certificates: Include statements of material properties indicating compliance with requirements including compliance with standards and type designations within standards.
- C. Specification Compliance: Include description of type.
 - 1. To comply with property specification as per ASTM C 612. Standard specification for mineral fiber board insulation, Type IA and Type IB.
 - 2. To comply with property specification as per ASTM C 1136 (facings), FSK-TYPE II, ASJ: TYPE I,II.
 - 3. To comply with puncture resistance (TAPPI Test T803, Beach units), FSK facings-25, ASJ facings-50.
 - 4. Insulation board should be 2" thickness.

END OF SECTION 07 21 00
END OF SECTION B

A PDF version of the drawings can be viewed at the following link:
<https://purchasing.houstontx.gov/buyer/BidDocumentManager.aspx?id=C25754>

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WALTER P. MOORE

WALTER P. MOORE AND ASSOCIATES, INC.
12000 WESTHEIMER BLVD., SUITE 1100
HOUSTON, TEXAS 77042
PHONE: 281.261.2200 FAX: 281.261.2201
WWW.WPMOORE.COM

PROJECT NAME
**611 WALKER
CMU WALL
STABILIZATION
REPAIRS**

CITY OF HOUSTON



WALTER P. MOORE AND ASSOCIATES, INC.
TYPE Firm Registration No. 14558

ISS. DATE 08/04/2015 REVIEWER

1 08/14/2015 ISSUED FOR OWNER

2 08/14/2015 ISSUED FOR PERMIT

DESIGNED BY UDW

REVIEWED BY HB

DRAWN BY A

PROJECT NUMBER D04-REB-40

DATE Aug 21, 2015

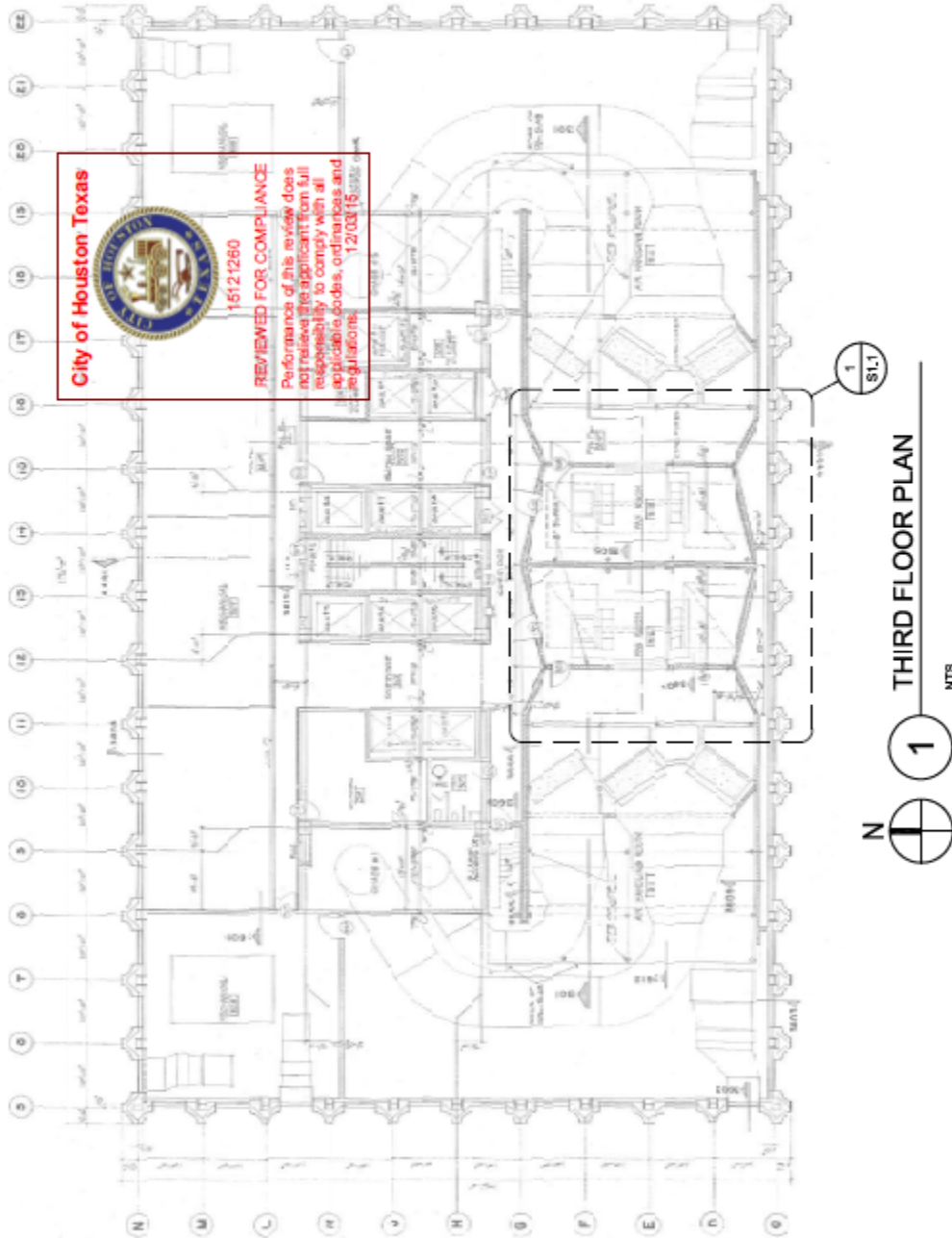
SHEET TITLE

THIRD FLOOR PLAN

SHEET NUMBER

S1.0

THANKS TO THE CITY OF HOUSTON AND ASSOCIATES, INC.



City of Houston Texas
15121280
REVIEWED FOR COMPLIANCE
Performance of this review does not relieve the applicant from full responsibility to comply with all applicable codes, ordinances and regulations. 12/03/15

N
1
THIRD FLOOR PLAN
NTS

WALTER P MOORE

WALTER P. MOORE AND ASSOCIATES, INC.
1307 MAGNIFICENT STREET, SUITE 1100
HOUSTON, TEXAS 77055

PROJECT NAME: 611 WALKER
CMU WALL
STABILIZATION
REPAIRS

CITY OF HOUSTON



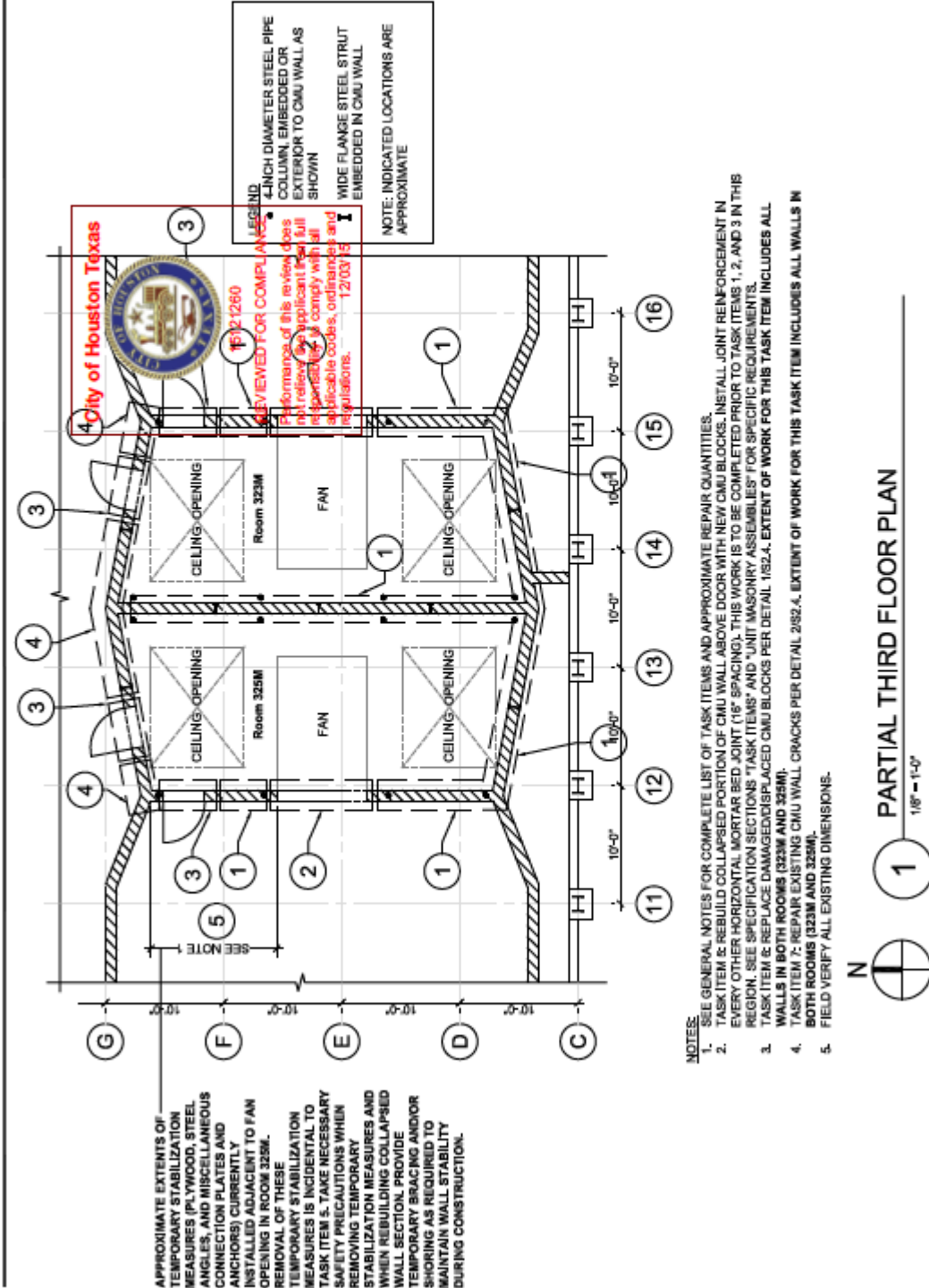
Walter P. Moore and Associates, Inc.
TSPTE Firm Registration No. 1505

DATE: 08/14/2015
1. 08/14/2015 ISSUED FOR OWNER
2. 08/21/2015 ISSUED FOR PERMIT

DESIGNED BY: MMW
CHECKED BY: HB
DRAWN BY: A
PROJECT NUMBER: 000-0004-00
DATE: Aug 21, 2015
SHEET TITLE

PARTIAL
THIRD FLOOR PLAN

S1.1



WALTER P MOORE

WALTER P. MOORE AND ASSOCIATES, INC.
10711 MARSHWATER STREET, SUITE 1100
HOUSTON, TEXAS 77036

PROJECT NAME: 6111 WALKER

CMU WALL
STABILIZATION
REPAIRS

CITY OF HOUSTON



Walter P. Moore and Associates, Inc.
TYPE Form Registration No. 1559

NO. DATE REVIEWED FOR PERMIT

1 08/10/15 REVIEWED FOR OWNER

2 08/07/15 ISSUED FOR PERMIT

DATE

08/21/2015

PROJECT NUMBER

003-0024-00

DATE

Aug 21, 2015

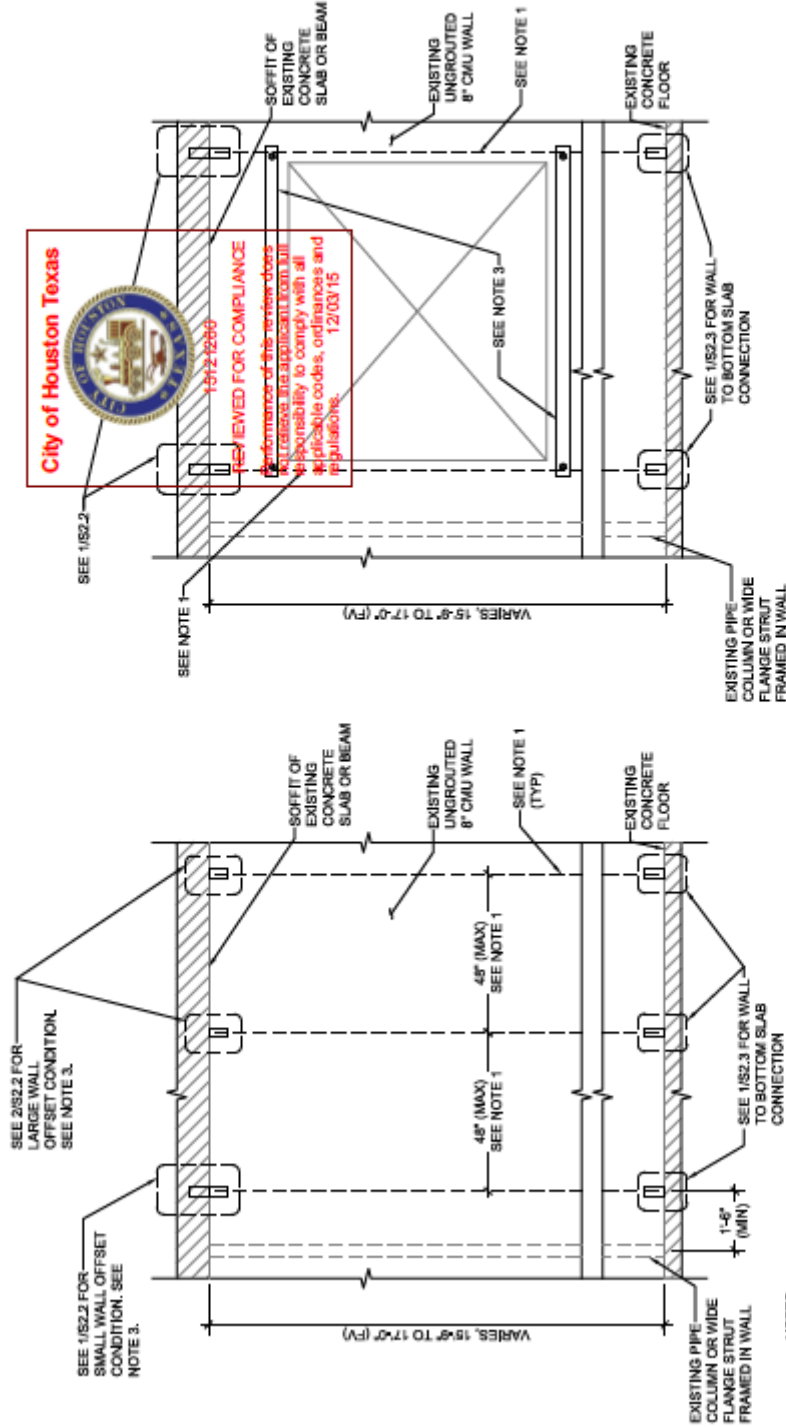
SHEET TITLE

REPAIR DETAILS

SHEET NUMBER

S2.0

SCALE: 1/8" = 1'-0"



- NOTES:
1. INSTALL (1) - #6 BAR AT EACH SIDE OF WALL CORNERS.
 2. SEE DETAIL 3/S2.3 FOR INSTALLING BAR IN EXISTING CELL.
 3. TOP CONNECTION SHALL CONFORM TO EITHER DETAIL 1/S2.2 OR 2/S2.2. CONNECTION TYPE IS DEPENDENT ON FRAMING AT TOP OF WALL AND WALL OFFSET CONDITION.
 4. PAINT REPAIRED CMU SURFACES TO MATCH EXISTING CONDITIONS.

TYPICAL WALL ELEVATION, CMU WALL
STRENGTHENING (NO OPENING)

1

NTS

TASK ITEM 1

TYPICAL WALL ELEVATION, CMU WALL
STRENGTHENING (FAN OPENING)

2

NTS

TASK ITEM 2

WALTER P MOORE

WALTER P. MOORE AND ASSOCIATES, INC.
1971 BARBERS STREET, SUITE 1100
HOUSTON, TEXAS 77056

PROJECT NAME: CMU WALL STABILIZATION REPAIRS

611 WALKER
CMU WALL
STABILIZATION
REPAIRS

CITY OF HOUSTON



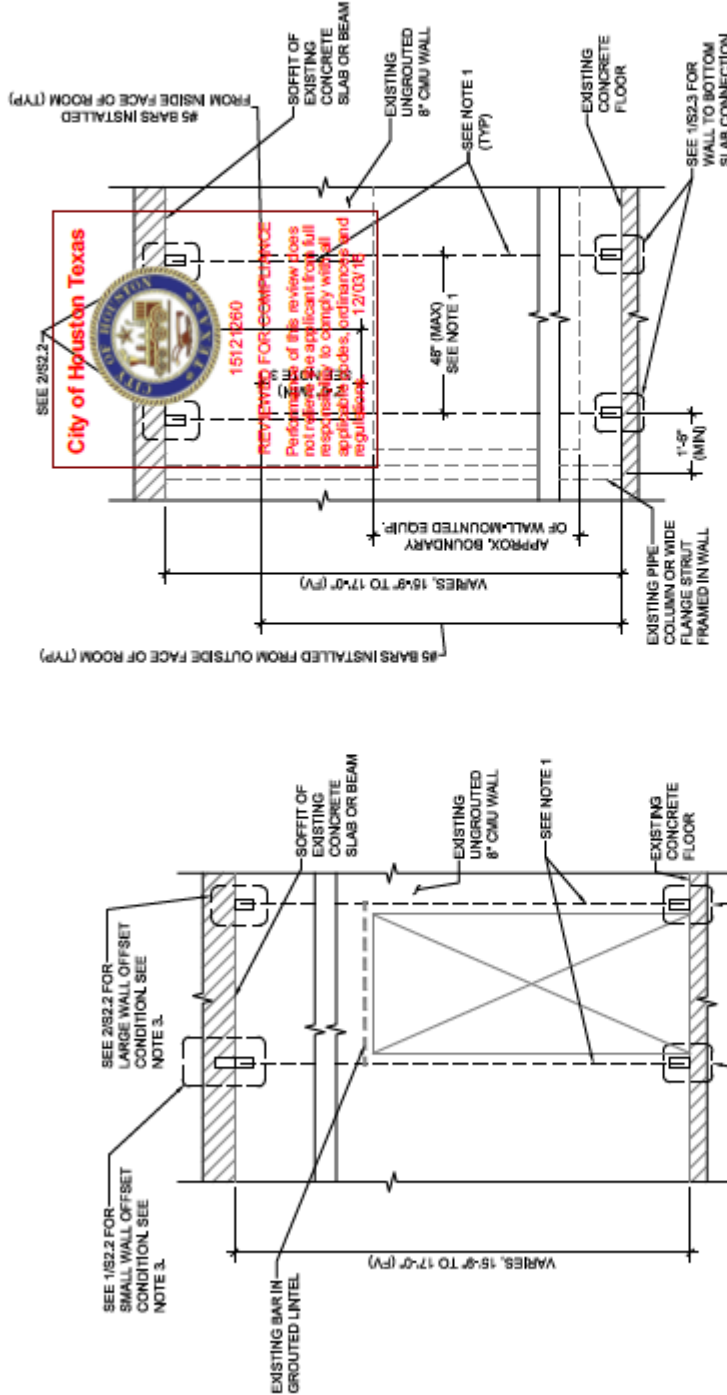
WALTER P. MOORE AND ASSOCIATES, INC.
TYPE Firm Registration No. 1859

NO. DATE	REVISION
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2. 08/27/2015	ISSUED FOR PERMIT

DESIGNED BY	MDA
REVIEWED BY	HB
DRAWN BY	A
PROJECT NUMBER	DDA-0554-00
DATE	Aug 21, 2015
SHEET TITLE	

REPAIR DETAILS
SHEET NUMBER

S2.1
SHEET NUMBER



- NOTES:
1. INSTALL (1) - #5 BAR AT EACH SIDE OF WALL CORNERS. INSTALL (1) - #5 BAR AT 48" MAX IN FIELD (BETWEEN CORNERS). SEE NOTE 2 ON SHEET 80.1 FOR ADDITIONAL INFORMATION REGARDING BAR QUANTITIES.
 2. SEE DETAIL 3/82.3 FOR INSTALLING BAR IN EXISTING CELL.
 3. SPLICES SHALL INCLUDE A 30" LAP LENGTH AS SHOWN AND SHALL BE LOCATED WITHIN HEIGHT OF WALL AS REQUIRED TO AVOID WALL-MOUNTED EQUIPMENT.
 4. PAINT REPAIRED CMU SURFACES TO MATCH EXISTING CONDITIONS.

TYPICAL WALL ELEVATION, CMU WALL
STRENGTHENING (NORTH WALL
ELEVATION)

2
NTS

TASK ITEM 4

- NOTES:
1. INSTALL (1) - #5 BAR AT EACH SIDE OF DOOR OPENING AS SHOWN.
 2. SEE DETAIL 3/82.3 FOR INSTALLING BAR IN EXISTING CELL.
 3. TOP CONNECTION SHALL CONFORM TO EITHER DETAIL 1/82.2 OR 2/82.2. CONNECTION TYPE IS DEPENDENT ON FRAMING AT TOP OF WALL AND WALL OFFSET CONDITION.
 4. PAINT REPAIRED CMU SURFACES TO MATCH EXISTING CONDITIONS.

TYPICAL WALL ELEVATION, CMU WALL
STRENGTHENING (DOOR OPENING)

1
NTS

TASK ITEM 3

WALTER P MOORE

WALTER P. MOORE AND ASSOCIATES, INC.
1307 HARRISON STREET, SUITE 1102
HOUSTON, TEXAS 77002
PHONE: 713/261-1100 FAX: 713/261-1101

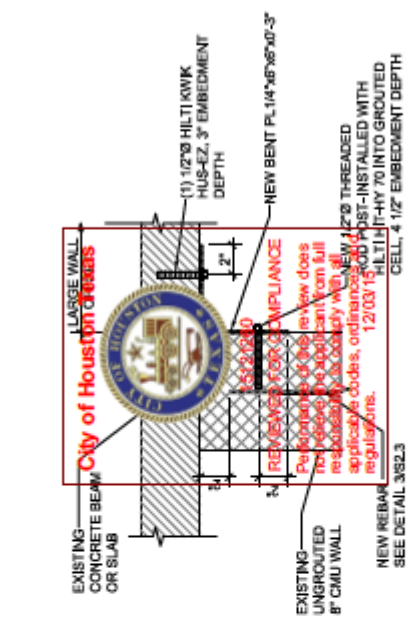
PROJECT: 611 WALKER
CMU WALL
STABILIZATION
REPAIRS

CITY OF HOUSTON



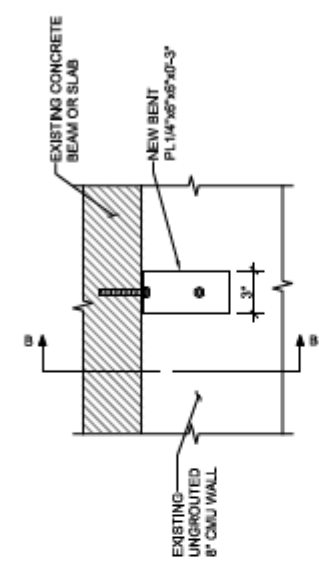
Walter P. Moore and Associates, Inc.
TYPE Firm Registration No. 1558

NO. DATE	DESCRIPTION
1 08/14/2015	ISSUED FOR OWNER REVIEW
2 08/13/2015	ISSUED FOR PERMIT
DATE	BY
08/21/2015	WPM
PROJECT NUMBER	DDA-0094-00
DATE	Aug 21, 2015
SHEET TITLE	



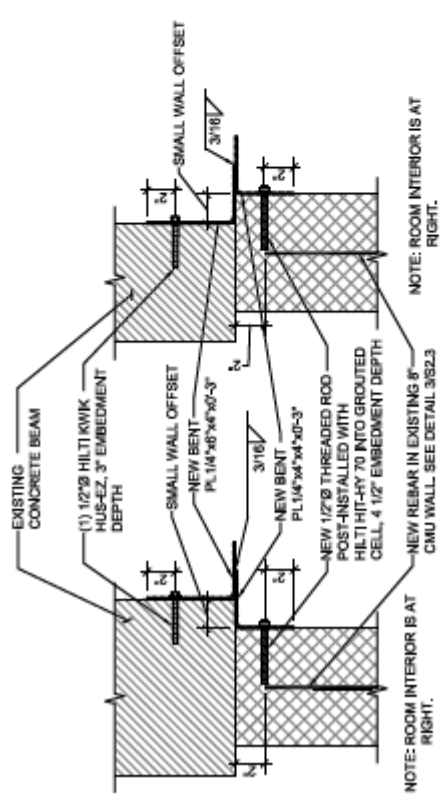
NOTE: ROOM INTERIOR IS AT RIGHT.

SECTION B-B



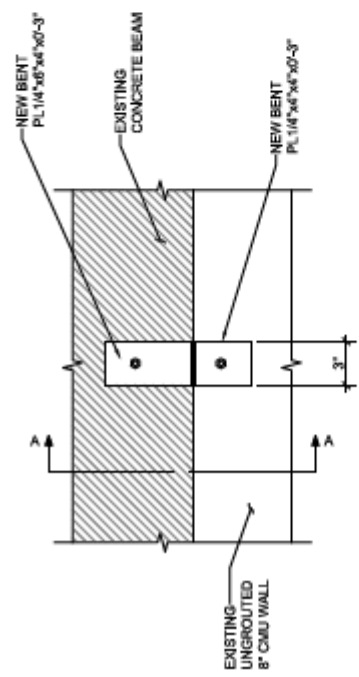
TYPICAL - TOP OF WALL CONNECTION
(ONE BENT PLATE)

2 NTS



NOTE: ROOM INTERIOR IS AT RIGHT.

SECTION A-A



TYPICAL - TOP OF WALL CONNECTION
(TWO BENT PLATES)

1 NTS

S2.2

WALTER P MOORE

WALTER P. MOORE AND ASSOCIATES, INC.
1202 BARCLAY STREET, SUITE 100
HOUSTON, TEXAS 77002

PROJECT NAME: 611 WALKER CMU WALL STABILIZATION REPAIRS

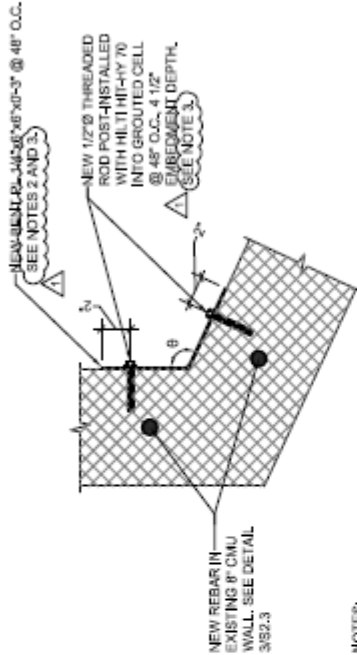
611 WALKER
CMU WALL
STABILIZATION
REPAIRS

CITY OF HOUSTON



Walter P. Moore and Associates, Inc.
TBPE Firm Registration No. 1656

NO. DATE	ISSUED FOR	BY
1. 08/14/2018	ISSUED FOR OWNER	WPM
2. 08/14/2018	ISSUED FOR PERMIT	WPM
3. 08/14/2018	ADDENDUM 001	WPM
DATE	PROJECT NUMBER	DATE
08/14/2018	000-1656-00	08/14/2018

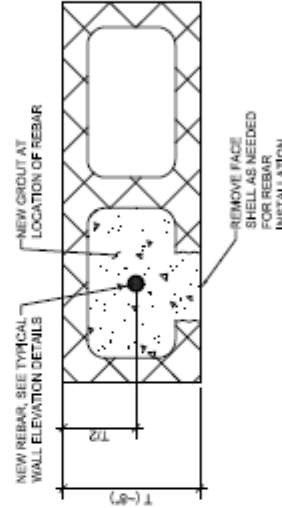


NOTES:

- ONLY OBTUSE ANGLE CASE (B) SHALL BE USED. ANGLE CASE (B) SHALL BE SIMILAR. PLATE LEGS MAY BE LENGTHENED OR SHORTENED AS NECESSARY TO AVOID INTERFERENCES SUCH AS EXTERNAL PIPE COLUMNS. EACH PLATE LEG CAN BE LENGTHENED UP TO 24 INCHES LONG (TOTAL LENGTH OF 48 INCHES). PROVIDE 2 INCH EDGE DISTANCE FOR THREADED RODS REGARDLESS OF PLATE LEG LENGTH.
- LOCATIONS FOR WALL CORNER REINFORCING BARS SHALL BE ADJUSTED AS NECESSARY IN CONJUNCTION WITH ANY CORNER PLATE SIZE ADJUSTMENTS SUCH THAT THE GROUTED AND REINFORCED CELLS ALIGN WITH THE POST-INSTALLED THREADED RODS ACCOMPANYING THE CORNER PLATES.

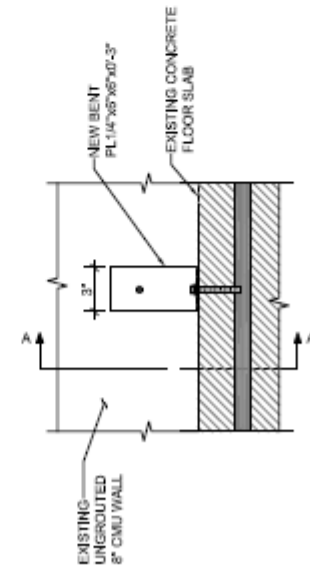
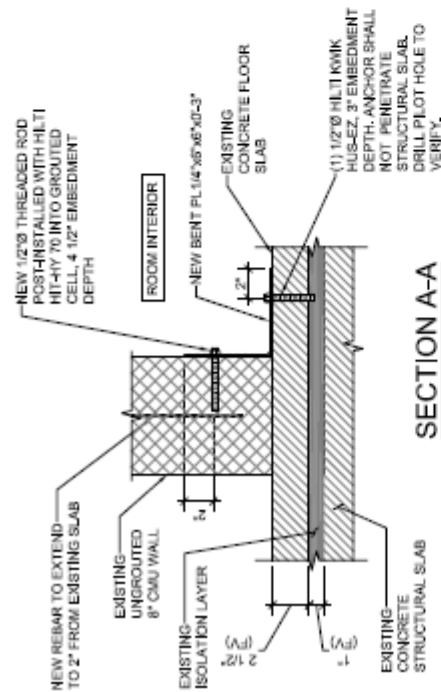
2 TYPICAL - CORNER CONNECTION

NTS



3 TYPICAL - BAR INSTALLATION IN EXISTING CELL

NTS



1 TYPICAL - BOTTOM OF WALL CONNECTION

NTS

REPAIR DETAILS

SHEET NUMBER

S2.3

Scale: 1/4" = 1'-0" (SEE NOTES FOR SCALE)



2 TYPICAL - CMU TUCKPOINTING
NTS TASK ITEM 7

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SECTION C

BUILDING WAGE DECISION

A decision PDF version of the 2016 Building Wage Scale can be viewed at the following web link
<https://purchasing.houstontx.gov/buyer/BidDocumentManager.aspx?id=C25754>

Document 00700

GENERAL CONDITIONS

A PDF version of the General Conditions can be viewed at the following web link:
<https://purchasing.houstontx.gov/buyer/BidDocumentManager.aspx?id=C25754>

Document 00800

SUPPLEMENTARY CONDITIONS

The following Paragraphs amend and supplement the July 1, 2016 edition of General Conditions. Unaltered portions of General Conditions remain in effect.

ARTICLE 1 - GENERAL PROVISIONS:

1.1 *DEFINITIONS:* Insert the following Paragraphs 1.1.9.1, 1.1.23, and 1.1.25 reorder the remaining definitions accordingly. Please insert the amended definition of "Specifications".

1.1.9.1 The firm of NA has been employed by the City as Construction Manager for the Work.

1.1.23 *Good Faith Efforts.* Steps taken to achieve an MBE, WBE, SBE, or PDBE goal or other requirements which, by their scope, intensity, and usefulness, demonstrate the bidder's responsiveness to fulfill the business opportunity objective, as well as the Contractor's responsibility to put forth measures to meet or exceed the MBE, WBE, SBE, or PDBE goal (Contract Goal). These steps apply from before a contract's award, through its duration, and after its conclusion, in the event the Contractor has been unsuccessful in meeting the Contract Goal. These efforts are required whether a Goal Oriented Contract or a Regulated Contract, as defined in the Office of Business Opportunity's Policy & Procedures Manual, available at <http://www.houstontx.gov/obo>.

1.1.25 *Incidental Work.* Work described as incidental shall be work defined in Document 01110 - Summary of Work, that do not have a direct pay item listed in the Document 00410B - Bid Form Part B, or less than 1% of the Contract Price and not capable of being measured. If Work is identified as Incidental Work and also covered by Bid Form Part B quantities, then the unit price item quantities in the Bid Form Part B shall govern.

1.1.45 *Specifications.* Divisions 01 through 16 of the documents that are incorporated into the Agreement, consisting of written General Requirements and requirements for Products, standards, and workmanship for the Work, and performance of related services. All specifications are amended to include, under the Measurement and Payment Section, the following sentence: "Work described as Incidental Work shall not be paid as a separate unit price item."

ARTICLE 3 - THE CONTRACTOR

3.5 *LABOR:* Insert the following Paragraphs, 3.5.3.1.1, 3.5.3.1.2, and 3.5.3.1.3.

3.5.3.1.1 If the Original Contract Price is greater than One Million Dollars, Contractor shall make Good Faith Efforts to comply with the City ordinances regarding Minority Business Enterprises (MBE), Women

Business Enterprises (WBE), Persons with Disabilities Business Enterprises (PDBE) and Small Business Enterprise (SBE) participation goals which are as follows:

- 3.5.3.1.1.1 the MBE goal is 0 percent,
- 3.5.3.1.1.2 the WBE goal is 0 percent, and
- 3.5.3.1.1.3 the PDBE goal is 0 percent.
- 3.5.3.1.1.4 The bidder may substitute SBE participation of no more than four percent of the MBE goal, the WBE goal, or portions of the MBE Goal and WBE Goal.
- 3.5.3.1.1.5 The bidder may not use Native-American-owned firms that are certified as MBEs to meet MBE contract goals. Native-Americans firms can only be used as SBEs in fulfillment of the above stated goals.
- 3.5.3.1.1.6 The bidder may not use MWSBE Suppliers to account for more than 50% of the MWSBE participation plan.

3.5.3.1.2 The MBE, WBE, PDBE, and SBE goals are specific to this Agreement. The Contractor shall make reasonable efforts to achieve these goals.

3.5.3.1.3 Failure by Contractor to comply with the goals for MBE, WBE, SBE, or PDBE is a material breach of the Agreement, which may result in termination of the Agreement, or such other remedy permitted as the City deems appropriate.

ARTICLE 8 - TIME

8.1 *PROGRESS AND COMPLETION: Add the following Paragraph 8.1.6.1.*

8.1.6.1 Contractor shall credit the City by Change Order for inspection services for overtime work or work performed on Sundays or Legal Holidays. The amount Contractor credits the City will be [\$50.00 per hour] [actual costs] per inspector for inspection services.

ARTICLE 9 - PAYMENTS AND COMPLETION

9.1 *UNIT PRICE WORK: Delete Section 9.1 in its entirety and insert the following Section 9.1*

9.1 References to Unit Prices in individual Specification sections are not applicable to the Contract. Include payment for portions of the Work required by these sections in the Stipulated Price for the Contract.

9.4 *APPLICATIONS FOR PAYMENT, STIPULATED PRICE WORK: Insert the following Paragraph 9.4.3.*

9.4.3 The City of Houston's standard payment term is to pay 30 days after receipt of invoice or receipt of goods or services, whichever is later, according to the requirements of the Texas Prompt Payment Act (Texas Government Code, Chapter 2251). However, the City will pay in less than 30 days in return for an early payment discount from vendor as follows:

9.4.3.1 Payment Time - 10 Days: 2% Discount

9.4.3.2 Payment Time - 20 Days: 1% Discount

If the City fails to make a payment according to the early payment schedule above, but does make the payment within the time specified by the Prompt Payment Act, the City shall not receive the discount, but shall pay no other penalty. When the payment date falls on a Saturday, Sunday, or official holiday when City offices are closed and City business is not expected to be conducted, payment may be made on the following business day.

9.12 *LIQUIDATED DAMAGES: Insert the following Paragraph 9.12.1.1.*

9.12.1.1 The amount of liquidated damages payable by Contractor or Surety for each and every day of delay beyond Contract Time, are \$800.00 per day.

END OF DOCUMENT